

# Systems Approaches for Healthy Communities:

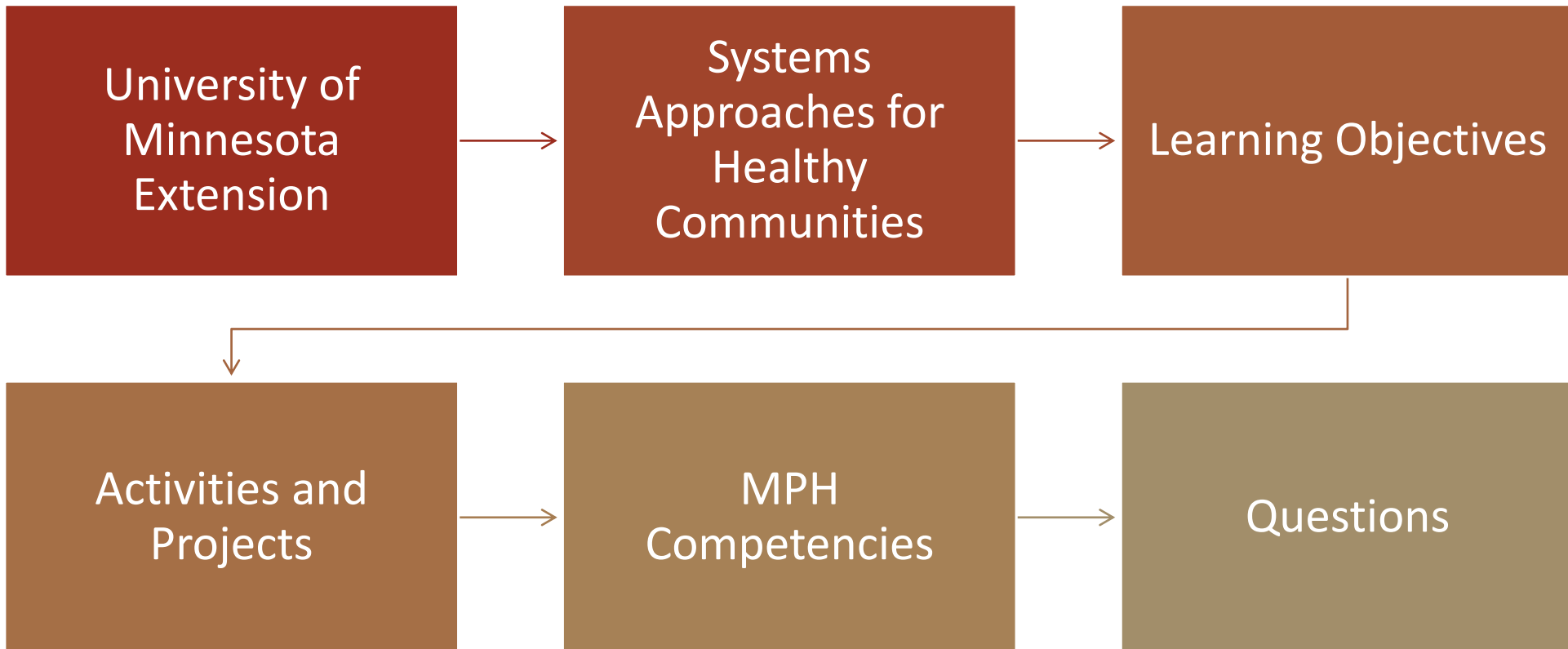
WEB-BASED PROFESSION DEVELOPMENT PROGRAM

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April 29, 2021

# Overview

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# University of Minnesota Extension

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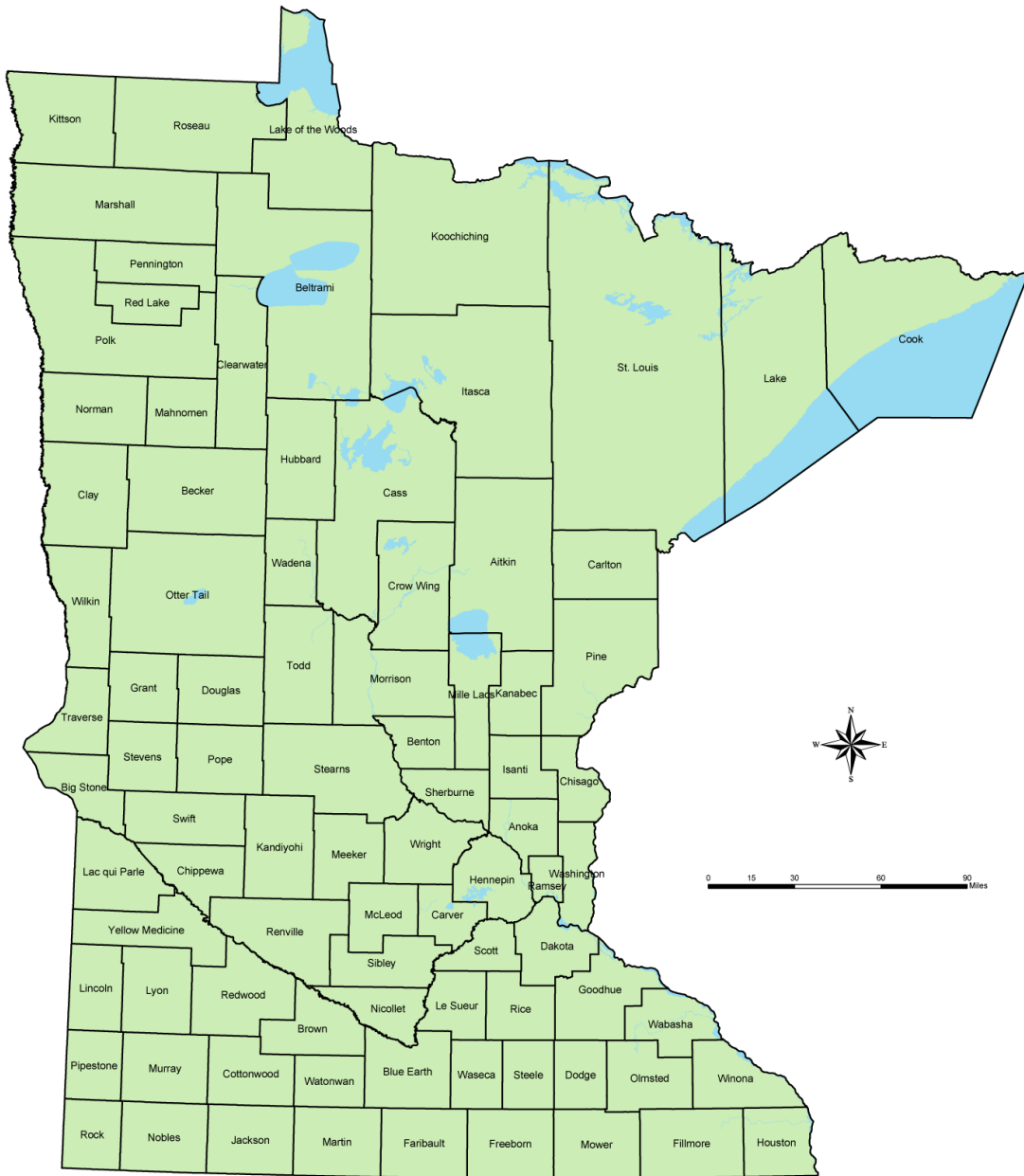
# University of Minnesota Extension

## Extension Centers

- Agriculture, Food and Natural Resources
- Community Vitality
- Youth Development
- Family Development
  - Program: Health and Nutrition
  - Extension Educators
  - SNAP-Ed and EFNEP

## Minnesota Extension Locations

- 89 Counties



# Systems Approaches for Healthy Communities

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# Modules

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Module 1: Frameworks for Healthy Communities



Module 2: Taking a Systems Approach



Module 3: Engaging with Community



Module 4: Knowing Your Community



Module 5: Putting it All Together

# Theoretical Modules

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## SOCIAL-ECOLOGIC MODEL



## SPECTRUM OF PREVENTION



# Learning Objectives

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# Learning Objectives

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- Gain an understanding of the Systems Approaches for Healthy Communities (SAHC) program and participate in the five learning modules.
- Understand the theories used in the development of the SAHC training program.
- Competence in evaluation, and interpretation of qualitative data.
- Communicate findings of the analyzed data.
- Develop a marketing plan for SAHC that outlines goals and strategies for promotion of the training.

# Projects

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# Systems Approaches for Healthy Communities

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- Analyzed and interpreted previously collected data
- Reported findings in a manuscript
- Developed a Marketing Plan

# Methods

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- Pre, Post-survey for overall course
- Retrospective Survey for modules



Photo by [Glenn Carstens-Peters](#) on [Unsplash](#)

Demographic characteristics	N (%) <sup>1</sup>
<b>Sex</b>	
Male	93 (9.6)
Female	868 (90)
Transgender (Male-Female)	1 (0.1)
Transgender (Female-Male)	2 (0.2)
<b>Age</b>	
19-25	120 (12.5)
26-40	424 (44.2)
41-64	390 (40.6)
65 and over	26 (2.7)
<b>Race/Ethnicity</b>	
White or Caucasian	680 (71.5)
Hispanic or Latino	136 (14.3)
Black or African American	82 (8.6)
Asian or Asian American	0
Native American or Indigenous	10 (1.1)
Native Hawaiian or other Pacific Islander	0
More than One Races <sup>2</sup>	43 (4.5)
<b>Education</b>	
High school or GED	10 (1.0)
Some college credits but no degree	74 (7.7)
2-year college degree	59 (6.1)
4-year college degree	466 (48.3)
Post 4-year college degree (e.g., Masters, Ph.D., M.D.)	355 (36.8)
<b>Primary Job Responsibilities<sup>3</sup></b>	
Only one job responsibility	343 (35.3)
More than one job responsibility	630 (64.7)

84.8%

85.1%

# Descriptive Statistics of Participants who Completed Pre-, Post-, and all Modules (N=973).

<sup>1</sup>Some numbers may not add up to the total participant number due to missing data.

<sup>2</sup>More than one race includes different combinations of Asian, Native Hawaiian or Pacific Islander, Black or African American, White, or Caucasian, American Indian, or Alaskan Native.

<sup>3</sup>Job responsibilities included Individual education / direct education, PSE approaches at a site, community, or county level, PSE approaches at a regional or state level, Program coordination and/or supervision, Specializing in a topic area (e.g., chronic disease prevention, early childhood obesity, etc.), Research and/or evaluation, Professional/staff development, Administration, None of the above (please specify).

# Methods (cont.)

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## Statistical Analysis

- Wilcoxon signed-rank test
- McNemar's test

p-value < 0.05 considered statistically significant

# Results

Percentages of Participants who Showed a Positive Change, Mean (SD) for Pre and Post, and p-value for the Mean Change Between Pre and Post for **Overall Course**.

At this time, to what extent do you disagree or agree with the statements below?	Overall training			
	%	<i>M (SD) for pre</i>	<i>M (SD) for post</i>	<i>p-value</i>
I am comfortable using the terms ,Policy, Systems, and Environmental (PSE), change when I work in the community.	48	2.9 (0.7)	3.4 (0.6)	<0.001
I am comfortable explaining the terms , Policy, Systems, and Environmental (PSE), change when I work in the community.	58	2.7 (0.8)	3.3 (0.6)	<0.001
I am comfortable using the Social-Ecological Model when I work in the community.	64	2.5 (0.8)	3.3 (0.6)	<0.001
I am comfortable explaining the Social-Ecological Model when I work in the community.	65	2.4 (0.8)	3.2 (0.6)	<0.001
I am prepared to engage with communities and partners to implement and support PSE change.	41	2.9 (0.8)	3.4 (0.6)	<0.001
I am comfortable assessing current needs and conditions in communities to make decisions about PSE approaches.	50	2.7 (0.8)	3.3 (0.6)	<0.001



# Results

## Pre- Post Change Descriptive Statistics and McNemar's Test for Overall Course



Outcomes	No Pre-Post change N (%)	Pre-Post with change N (%)	Pre-post Change <sup>1</sup>		McNemar's Chi-square p-value
			[Strongly Agree + Agree] to [Strongly Disagree + Disagree] N (%) <sup>2</sup>	[Strongly Disagree + Disagree] to [Strongly Agree + Agree] N (%) <sup>2</sup>	
<b>Overall Course</b>					
I am comfortable using the terms, Policy, Systems, and Environmental (PSE) change when I work in the community.	715 (73.5%)	258 (26.5%)	9 (3.5%)	<b>249 (96.5%)</b>	<0.001
I am comfortable explaining the terms , Policy, Systems, and Environmental (PSE) change when I work in the community.	604 (62.1%)	369 (37.9%)	7 (1.9%)	<b>362 (98.1%)</b>	<0.001
I am comfortable using the Social-Ecological Model when I work in the community.	503 (51.7%)	470 (48.3%)	11 (2.3%)	<b>459 (97.7%)</b>	<0.001
I am comfortable explaining the Social-Ecological Model when I work in the community.	460 (47.3%)	513 (52.7%)	11 (2.1%)	<b>502 (97.9%)</b>	<0.001
I am prepared to engage with communities and partners to implement and support PSE change.	687 (70.6%)	286 (29.4%)	13 (4.5%)	<b>273 (95.5%)</b>	<0.001
I am comfortable assessing current needs and conditions in communities to make decisions about PSE approaches.	603 (44.2%)	370 (55.8%)	10 (2.7%)	<b>360 (97.3%)</b>	<0.001



# Results

Percentages of Participants who Showed a Positive Change, Mean (SD) for Pre And Post, and P-value for the Mean Change Between Pre and Post for **Module 2**.

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## Module 2

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### Before and after module 2...

	<i>%</i>	<i>M (SD) for pre</i>	<i>M (SD) for post</i>	<i>p-value</i>
When working on an issue, I can identify interventions to take at each level of the Spectrum of Prevention.	73	2.5 (0.7)	3.3 (0.6)	<0.001
I can recognize which level on the Spectrum of Prevention a given intervention represents.	48	2.4 (0.7)	3.2 (0.6)	<0.001
I can describe the importance of integrating both direct education and PSE interventions.	21	2.8 (0.8)	3.5 (0.6)	<0.001

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# Results

## Pre- Post Change Descriptive Statistics and McNemar's Test for **Module 2**

Outcomes	No Pre-Post change N (%)	Pre-Post with Change N (%)	Pre-post Change <sup>1</sup>		McNemar's Chi-square p-value
			[Strongly Agree + Agree] to [Strongly Disagree + Disagree] N (%) <sup>2</sup>	[Strongly Disagree + Disagree] to [Strongly Agree + Agree] N (%) <sup>2</sup>	
Module 2					
When working on an issue, I can identify interventions to take at each level of the Spectrum of Prevention.	463 (47.6%)	510 (52.4%)	39 (7.6%)	<b>471 (92.4%)</b>	<0.001
I can recognize which level on the Spectrum of Prevention a given intervention represents.	432 (44.4%)	541 (55.6%)	40 (7.4%)	<b>501 (92.6%)</b>	<0.001
I can describe the importance of integrating both direct education and PSE interventions.	653 (67.1%)	320 (32.9%)	33 (10.3%)	<b>287 (89.7%)</b>	<0.001

# Results

Percentages of Participants who Showed a Positive Change, Mean (SD) for Pre and Post, and p-value for the Mean Change Between Pre and Post for **Module 4**.

<b>Module 4</b>				
<b>Before and after module 4...</b>	<b>%</b>	<b><i>M (SD) for pre</i></b>	<b><i>M (SD) for post</i></b>	<b><i>p-value</i></b>
I can describe the purpose and role of community assessment in PSE approaches.	51	2.8 (0.7)	3.5 (0.6)	<0.001
I can explain why learning about your community is an ongoing process that increases the effectiveness of your work.	70	3.0 (0.7)	3.6 (0.6)	<0.001
I can identify assessment tools that relate to health promotion.	19	2.7 (0.8)	3.4 (0.6)	<0.001

# Results

## Pre- Post Change Descriptive Statistics and McNemar's Test for **Module 4**

Outcomes	No Pre-Post change N (%)	Pre-Post with change N (%)	Pre-post Change <sup>1</sup>		McNemar's Chi-square p-value
			[Strongly Agree + Agree] to [Strongly Disagree + Disagree] N (%) <sup>2</sup>	[Strongly Disagree + Disagree] to [Strongly Agree + Agree] N (%) <sup>2</sup>	
<b>Module 4</b>					
I can describe the purpose and role of community assessment in PSE approaches.	663 (68.1%)	310 (31.9%)	28 (9.0%)	<b>282 (91.0%)</b>	<0.001
I can explain why learning about your community is an ongoing process that increases the effectiveness of your work.	750 (77.1%)	223 (22.9%)	20 (9.0%)	<b>203 (91.0%)</b>	<0.001
I can identify assessment tools that relate to health promotion.	547 (56.2%)	426 (43.8%)	32 (7.5%)	<b>394 (92.5%)</b>	<0.001

# Results

Percentages of Participants who Showed a Positive Change, Mean (SD) for Pre and Post, and p-value for the Mean Change Between Pre and Post for **Module 5**.

<b>Module 5</b>				
<b>Before and after module 5...</b>	<b>%</b>	<b><i>M (SD) for pre</i></b>	<b><i>M (SD) for post</i></b>	<b><i>p-value</i></b>
I can explain that implementing PSE approaches requires ongoing learning, reflection, and practice.	63	2.8 (0.7)	3.5 (0.6)	<0.001
I can locate resources in the Systems Approaches Toolkit to that can be used to communicate about systems approaches in communities.	78	2.3 (0.8)	3.5 (0.7)	<0.001
I can locate resources in the Systems Approaches Toolkit that can be used to build my community development and leadership skills.	77	2.3 (0.8)	3.4 (0.7)	<0.001
I have specific goals for implementing PSE approaches in my work.	62	2.6 (0.8)	3.3 (0.6)	<0.001

# Results

## Pre- Post Change Descriptive Statistics and McNemar's Test for **Module 5**

Outcomes	No Pre-Post change N (%)	Pre-Post with change N (%)	Pre-post Change <sup>1</sup>		McNemar's Chi-square p-value
			[Strongly Agree + Agree] to [Strongly Disagree + Disagree] N (%) <sup>2</sup>	[Strongly Disagree + Disagree] to [Strongly Agree + Agree] N (%) <sup>2</sup>	
Module 5					
I can explain that implementing PSE approaches requires ongoing learning, reflection, and practice.	673 (69.2%)	300 (30.8%)	20 (6.7%)	<b>280 (93.3%)</b>	<0.001
I can locate resources in the Systems Approaches Toolkit that can be used to communicate about systems approaches in communities.	349 (35.9%)	624 (64.1%)	45 (7.2%)	<b>579 (92.8%)</b>	<0.001
I can locate resources in the Systems Approaches Toolkit that can be used to build my community development and leadership skills.	353 (36.3%)	620 (63.7%)	47 (7.6%)	<b>573 (92.4%)</b>	<0.001
I have specific goals for implementing PSE approaches in my work.	539 (55.4%)	434 (44.6%)	33 (7.6%)	<b>401 (92.4%)</b>	<0.001

# Results

After Module Evaluations for **Modules 1-5.**

To what extent do you disagree or agree with the statements below? -	Module 1, n (%)	Module 2, n (%)	Module 3, n (%)	Module 4, n (%)	Module 5, n (%)	
The module included examples and/or activities that are relevant to my work.						
[Strongly disagree + Disagree]	33 (3.4)	31 (3.2)	33 (3.4)	39 (4.0)	44 (4.5)	
[Strongly agree + Agree]	939 (96.6)	942 (96.8)	939 (96.6)	932 (96.0)	928 (95.5)	96.3%
I will use information and tools from the module in my work.						
[Strongly disagree + Disagree]	33 (3.3)	25 (2.5)	28 (2.9)	35 (3.6)	39 (4.0)	
[Strongly agree + Agree]	939 (96.6)	948 (97.5)	944 (97.1)	938 (96.4)	931 (96.0)	96.7%

# Key Takeaways

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Systems Approaches for Healthy Communities is an effective professional development course.

Succeeded in teaching how to 'think, see and do' effective PSE change work and connect it to direct education efforts.

Increased the capacity of participants to engage and Implement PSE change approaches.

Increased participants' comfort and ability to identify and describe key concepts gained from completing the course.

The course was relevant to participants' day-to-day work.



# Marketing Plan

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Program  
Overview

Program  
Assets

Competition

Target  
Audience

Outreach  
Strategies

Key  
Messages

Future  
Goals

# Marketing Plan Outreach Strategies

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KEY STAKEHOLDERS



CHANNELS OF  
COMMUNICATION



ACTION STEPS

# Marketing Plan Future Goals

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## SAHC Project Coordinator

- Keep program relevant
- Prepare action plans
- Build content

## Deepen the skills of graduates of SAHC

- Expand the training to
  - PSE,
  - Social Justice,
  - Food Equity

## Expand Audience

- Other UMN Extension Centers
- Other professional disciplines
  - Content building to make SAHC relevant to a specific audience.

# Key Takeaways

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Room for growth with SNAP-Ed Implementing Agencies

More time and resources needed to build and expand the training

Targeted messages to key stakeholders

# MPH Foundational Competencies

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NUMBER AND COMPETENCY		DESCRIPTION
3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate	<ul style="list-style-type: none"> <li>• Determine statistical tests to be used to analyze the data based on my research</li> </ul>
4	Interpret results of data analysis for public health research, policy, or practice	<ul style="list-style-type: none"> <li>• Analysis of the data</li> <li>• Recognized patterns that answered my research question</li> <li>• Information from the data analysis used to create the manuscript</li> </ul>
18	Select communication strategies for different audiences and sector	<ul style="list-style-type: none"> <li>• Developed marketing plan</li> <li>• Journal Submission Criteria</li> </ul>

NUMBER AND COMPETENCY		DESCRIPTION
19	Communicate audience-appropriate public health content, both in writing and through oral presentation	Written Manuscript
21	Perform effectively on interprofessional teams	Written manuscript and marketing plan UMN Extension professional development opportunities.
22	Apply systems thinking tools to a public health issue	Marketing plan was able to identify key stakeholders and communication channels and action steps to increase awareness and participation in the SAHC training course.

# MPH Emphasis Competencies

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# Public Health Nutrition

NUMBER AND COMPETENCY		DESCRIPTION
1	<b>Information literacy of public health nutrition</b>	Communicated to the public health community through a written manuscript the value of PSE approaches
2	<b>Compare and relate research into practice</b>	Conducted program evaluation through examination of results of the SAHC training data
3	<b>Population-based health administration</b>	Ability to effectively determine the effectiveness of the training and assess and improve the quality of the training
4	<b>Analysis of human nutrition principles</b>	Understand the theories and activities being used in the SAHC training
5	<b>Analysis of nutrition epidemiology</b>	Strengthened my ability to write the manuscript and select the peer reviewed journal for the submission of the manuscript

**MPH Committee:**

Dr. Sandra Procter

Dr. Jennifer Hanson

Dr. Ellyn Mulcahy

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Thank You!

# Questions?

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